SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT, NTS EVENT 'STILTON', 3 JUNE 1975

J. R. Woolson, et al

Teledyne Geotech

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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
NTS Event "STILTON", 3 June 1975

J.R.Woolson, D.D.Solari, M.S.Dawkins, K.J.Hill, and R.J.Markle
Alexandria Laboratories
Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

September 1975

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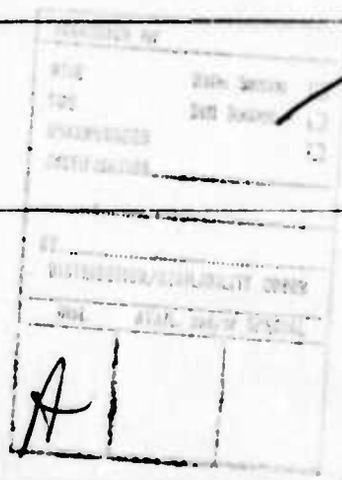

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SDCS Event Report No. 21

NTS Event "STILTON", 3 June 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	Origin Time	Latitude	Longitude	m_b	M_s
NORSAR	14:20:06	38 N	116 W	5.6	N/A
LASA	14:20:02	37.0N	116.0W	5.8	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

14:20:02	37.4N	116.5W	5.6	4.4

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR.

Long-period signals were recorded at all SDCS stations, ALPA and NORSAR. LASA was performing calibrations during the predicted signal arrival period. The long-period vertical channel magnification at HN-ME is unknown due to calibration problems. The gains of the horizontal LP instruments at RK-ON are unknown due to erratic calibration amplitudes. The long-period radial and transverse beams at NORSAR were not recoverable.

Details of the program used to obtain beamed vertical, radial and transverse long-period data at LASA, ALPA, and NORSAR are in the process of being reviewed. Vertical beams are probably valid while horizontal beams are questionable.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

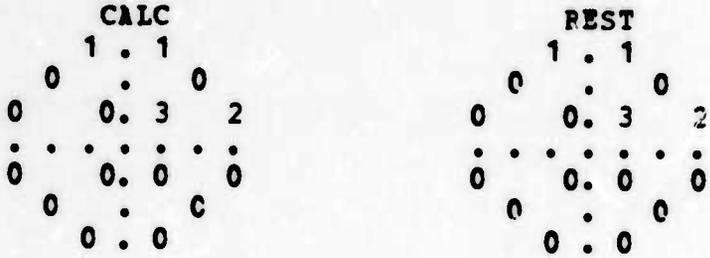
HYPOCENTER DETERMINATION

INPUT FOR EVENT 3 JUN 75
14:20:00.0 37.000N 116.000W 0KM.

STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
LAO	14 22 53.9	-0.0	0.4	12.0	36.1
RK-ON	14 24 46.4	-0.1	-0.6	21.1	43.1
CPO	14 25 25.5	-0.1	0.4	24.9	84.7
WH2YK	14 25 36.7	0.1	0.6	26.1	339.3
FN-WV	14 26 03.2	0.1	0.2	29.1	76.2
HN-ME	14 27 09.8	0.3	-0.1	36.7	60.5
NAO	14 31 32.0	-0.3	-0.9	73.1	24.0

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
14:20:11.2	37.683N	116.276W	60. CALC	0.2	4	7
14:20:01.7	37.376N	116.506W	0. REST	0.6	3	7



CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.69
MAJOR 61.7KM. MINOR 37.9KM. AZ= 30 AREA= 7346 SQ.KM. REST

DATA SUMMARY

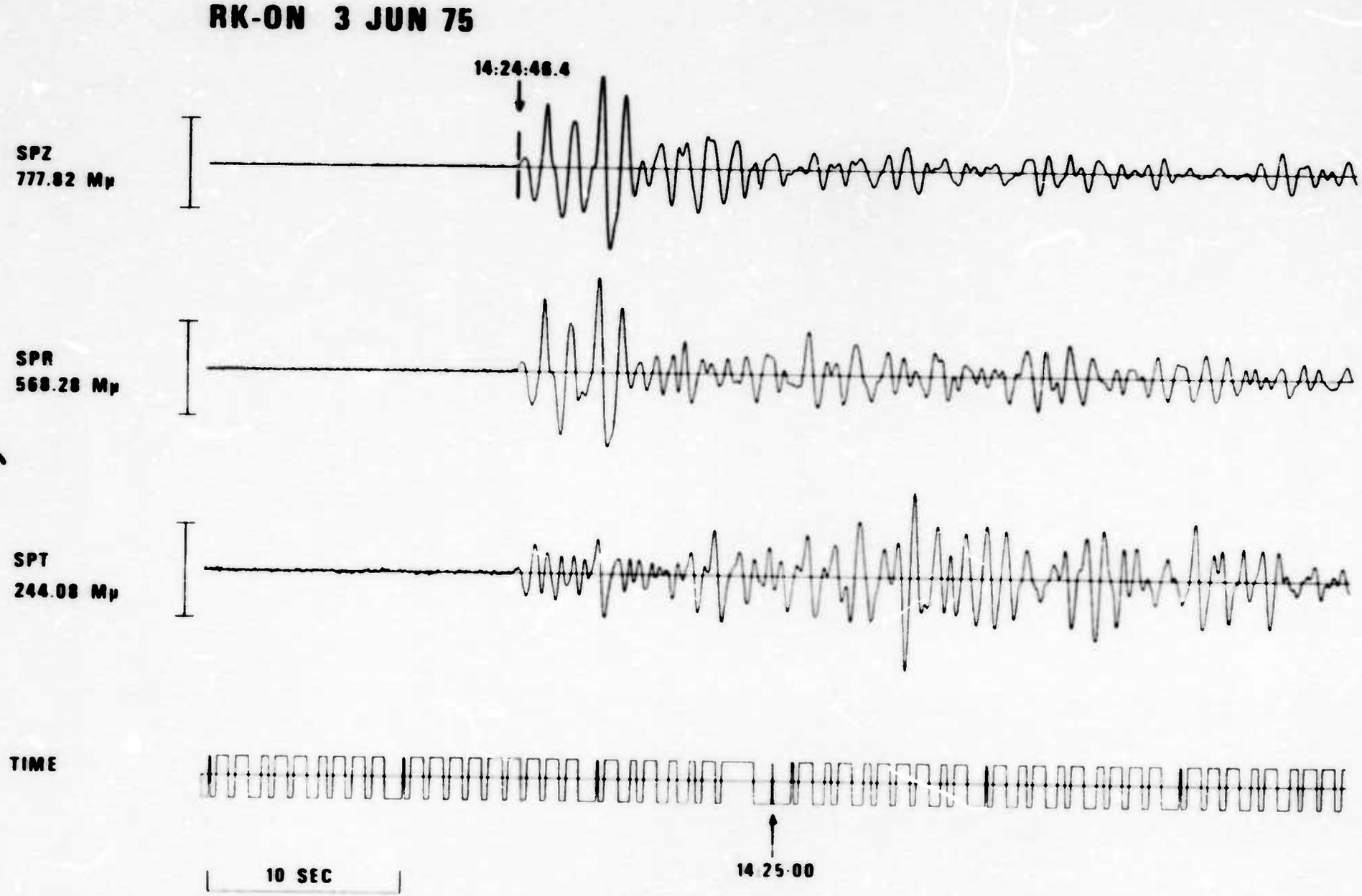
INPUT FOR EVENT 3 JUN 75
14:20:00.0 37.000N 116.000W 0KM.

STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIR	DIST
LAC M	EP	14 22 53.9	AB	1.2	451.	6.45			12.0
RK-ON	EP	14 24 46.4	SPZ	1.0	1470.	5.98			21.1
RK-ON	LR	14 33 42.0	LPZ	16.0	291.		4.91		21.1
CPO	EP	14 25 25.5	SPZ	0.9	827.	6.09			24.9
CPO	LQ	14 33 47.0	LPT	17.0	351.				
CPO	LR	14 35 31.0	LPZ	14.0	957.		5.50		24.9
WH2YK	EP	14 25 36.7	SPZ	1.0	154.	5.30			26.1
WH2YK	LQ	14 34 32.0	LPT	23.0	74.				
WH2YK	LR	14 36 51.0	LPZ	16.0	388.		5.13		26.1
FN-WV	EP	14 26 03.2	SPZ	1.0	64.	5.11			29.1
FN-WV	LQ	14 35 40.0	LPT	23.0	102.				
FN-WV	LR	14 38 31.0	LPZ	23.0	211.		4.91		29.1
ALPA	LR	14 39 32.0	LAB	23.0	51.		4.35		33.4
HN-ME	EP	14 27 09.8	SPZ	0.7	209.	5.55			36.7
HN-ME	LQ	14 38 18.0	LPT	30.0	15.				
HN-ME	LR	14 42 32.0	LPZ	18.0	??				36.7
NAO	EP	14 31 32.0	AB	0.9	120.	5.67			73.1
NAO	LR	15 03 00.0	LAB	18.0	11.		4.03		73.1

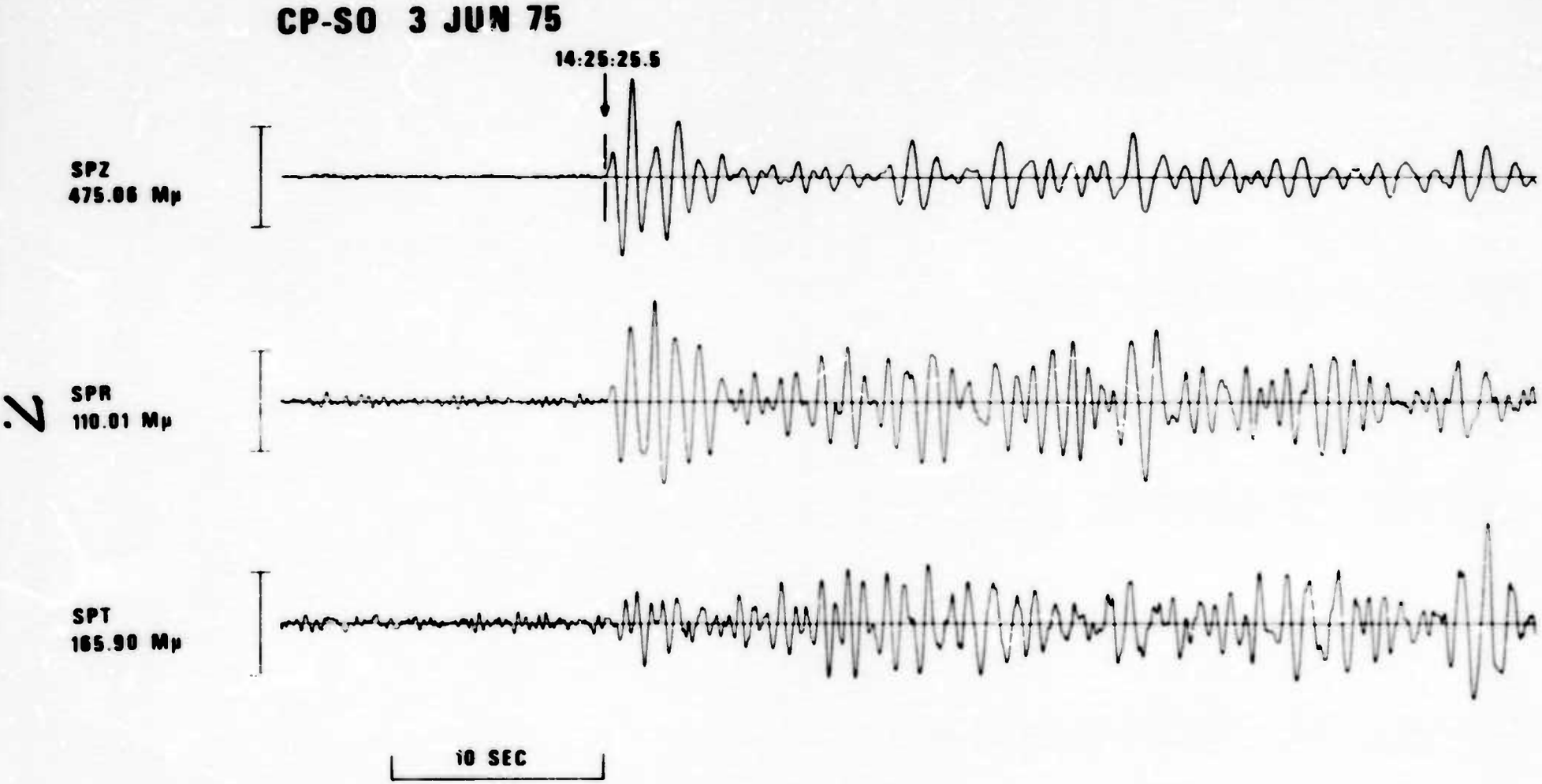
ORIGIN	LAT.	LONG.	DEPTH	(KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
14:20:11.2	37.393N	116.276W	60.	CALC	5.54	0.38	6	4.43	0.4	3
14:20:01.7	37.376N	116.506W	0.	REST	5.61	0.38	6	4.43	0.4	3

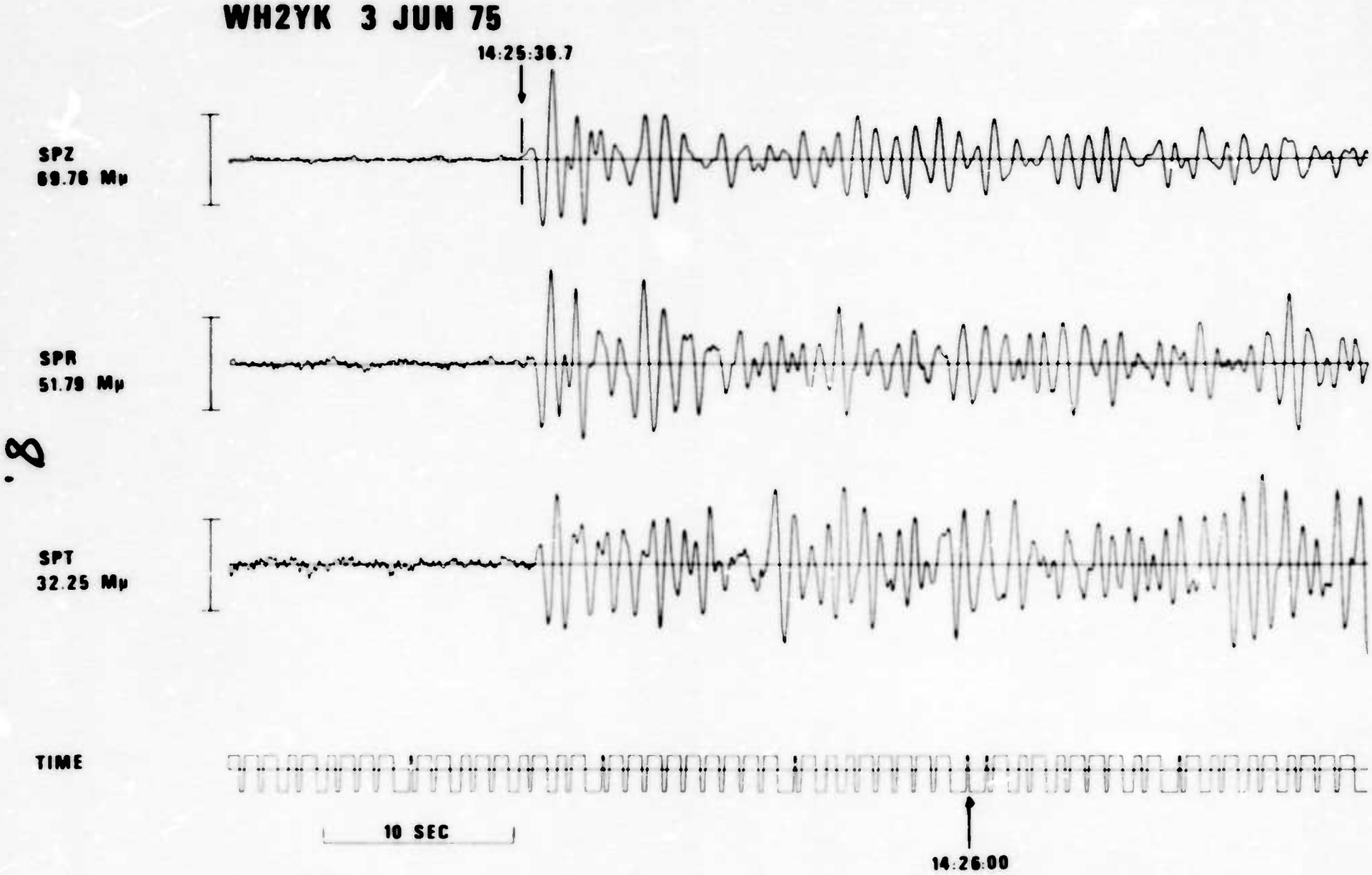
Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

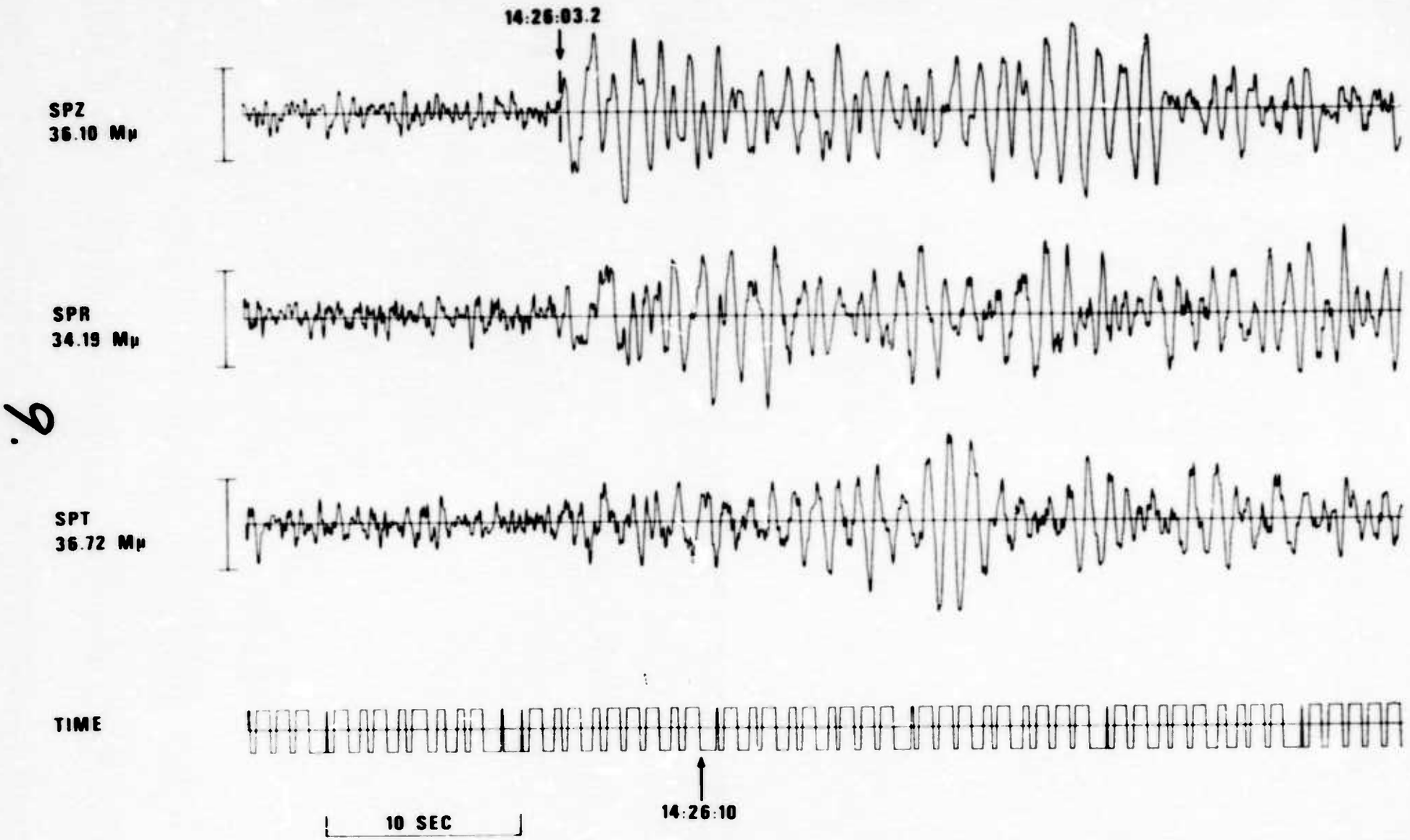
Average long-period magnitude (M_S) is based on Rayleigh wave observations in the period range of 17 to 23 seconds per cycle.

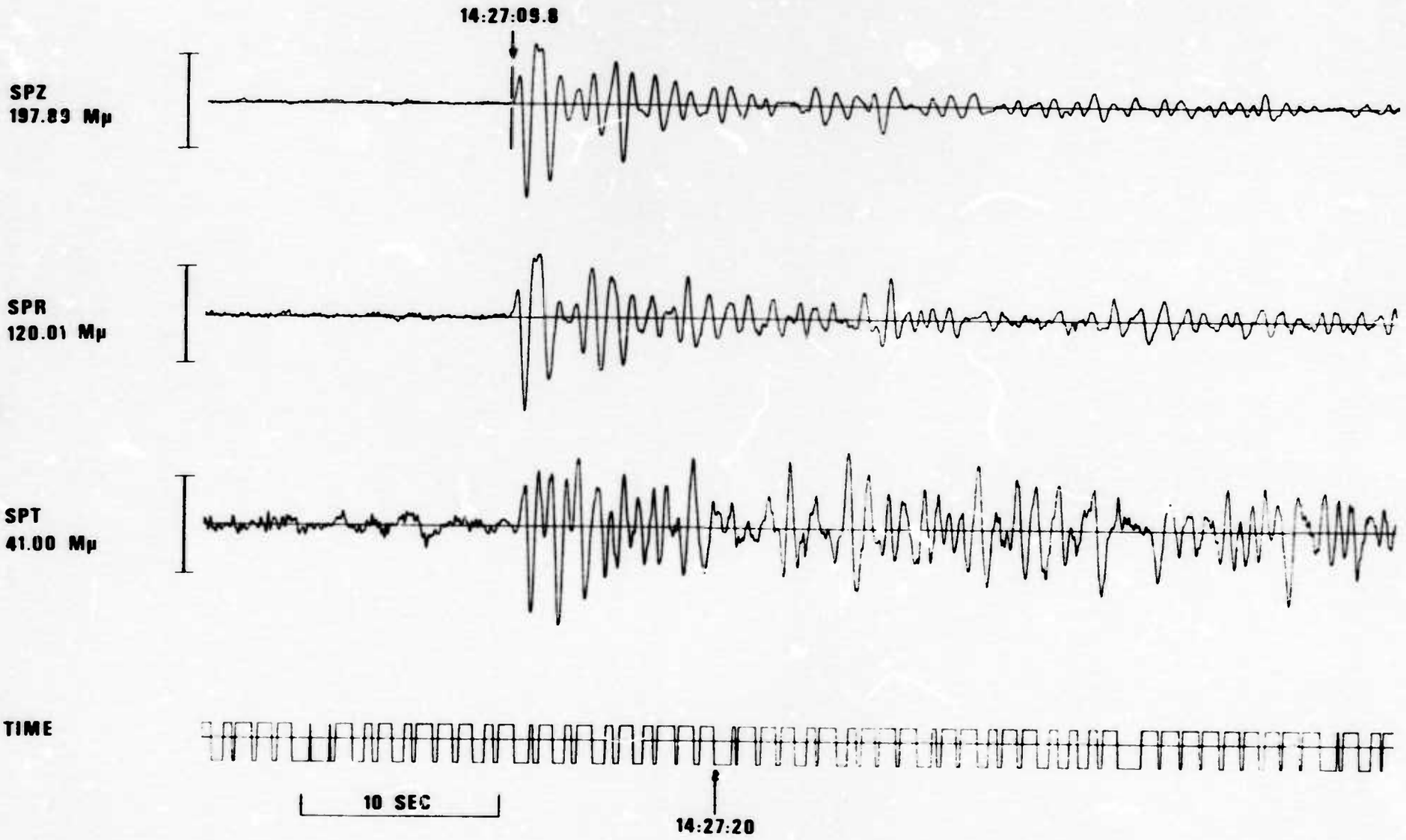

RK-ON 3 JUN 75
14:24:46.4
SPZ
777.82 Mμ
SPR
568.28 Mμ
SPT
244.08 Mμ
TIME
10 SEC
14:25:00

6.


CP-SO 3 JUN 75
14:25:25.5
SPZ
475.86 Mμ
SPR
110.01 Mμ
SPT
165.90 Mμ
10 SEC

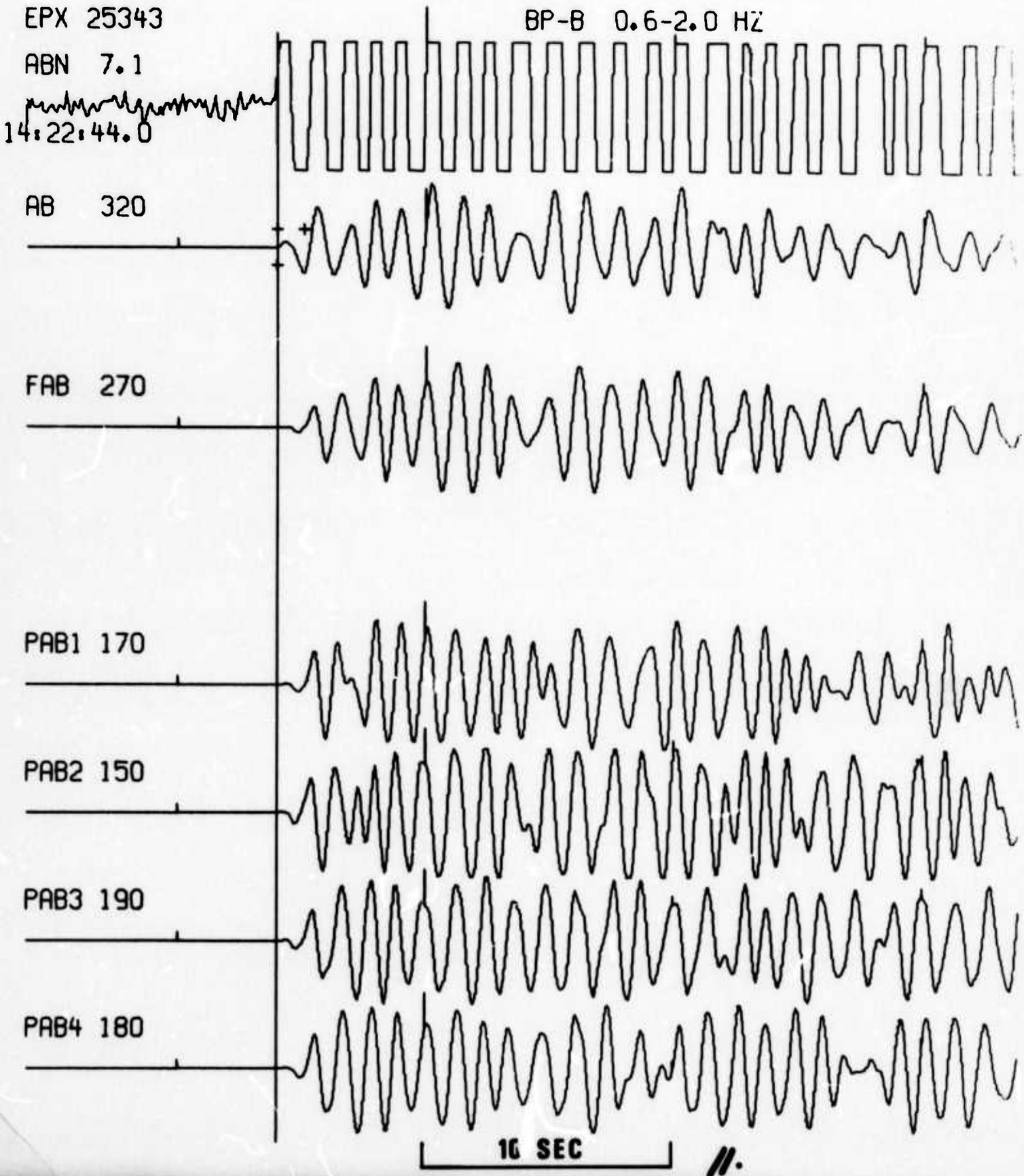

WH2YK 3 JUN 75
14:25:36.7
SPZ
69.76 Mμ
SPR
51.79 Mμ
SPT
32.25 Mμ
TIME
10 SEC
14:26:00


FN-WV 3 JUN 75
14:26:03.2
SPZ
36.10 Mμ
SPR
34.19 Mμ
SPT
36.72 Mμ
TIME
14:26:10
10 SEC

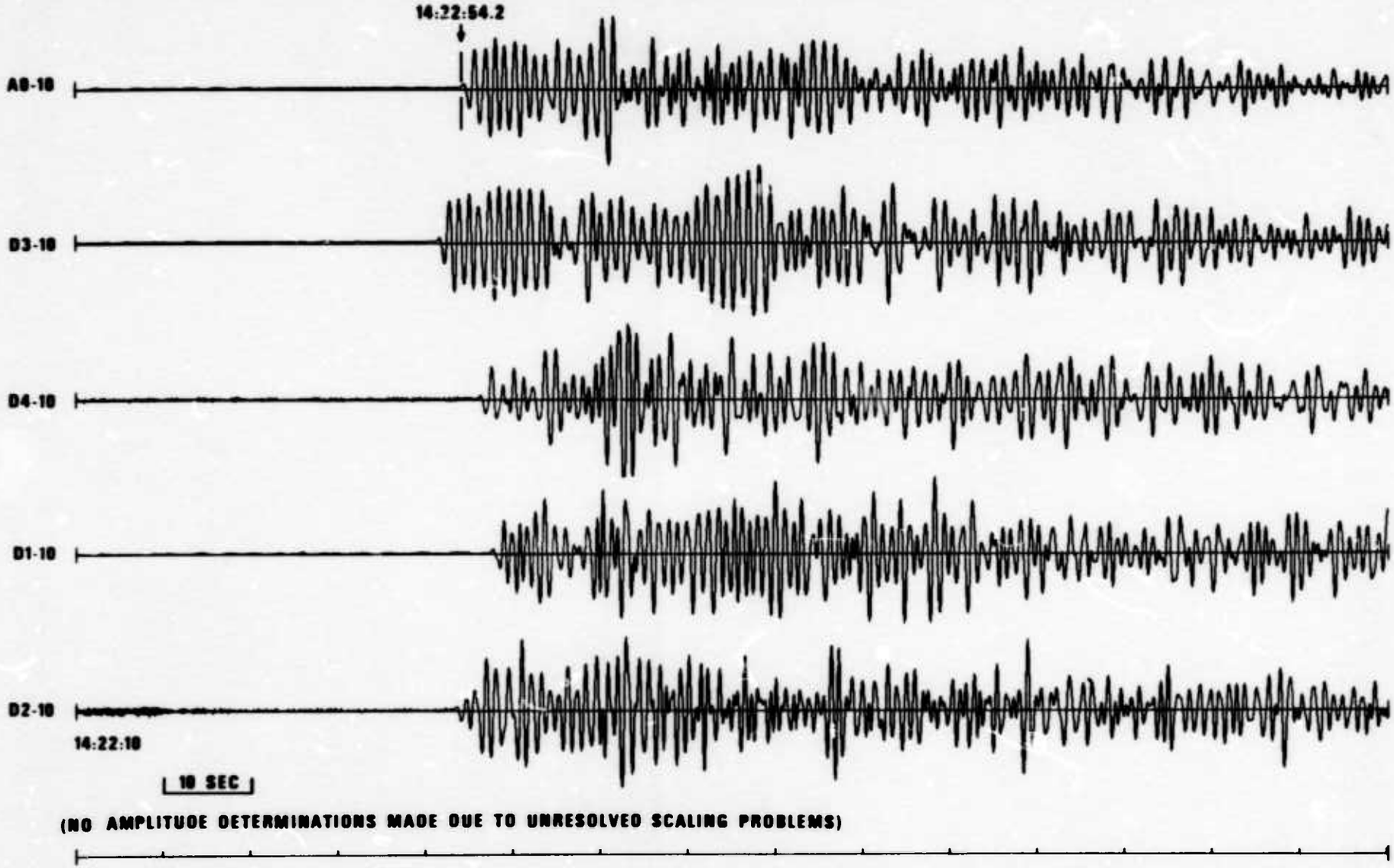

HN-ME 3 JUN 75
14:27:09.8
SPZ
197.89 Mμ
SPR
120.01 Mμ
SPT
41.00 Mμ
TIME
10 SEC
14:27:20

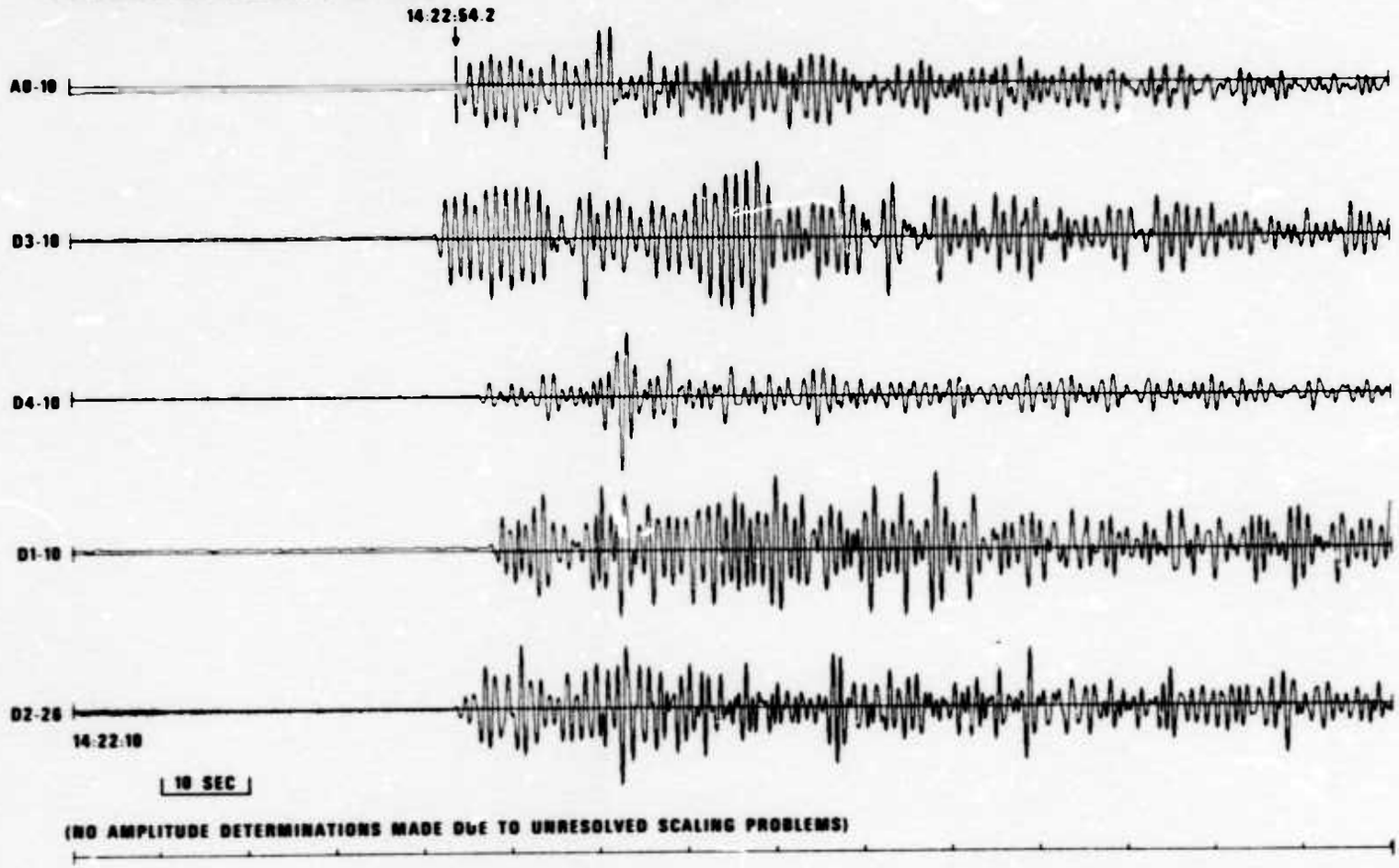
LASA

1 3 JUN 1975
2 14 20 2 37.0N 116.0W OG D 5.3 40 CALIFORNIA-NEVEDA BORDER
3 14 22.54.0 LAO P 55.9 1.1 8.2 12.1 220.7



LASA (INDIVIDUAL SHORT-PERIOD INSTRUMENTS) HIGH-GAIN SENSORS 3 JUN 75



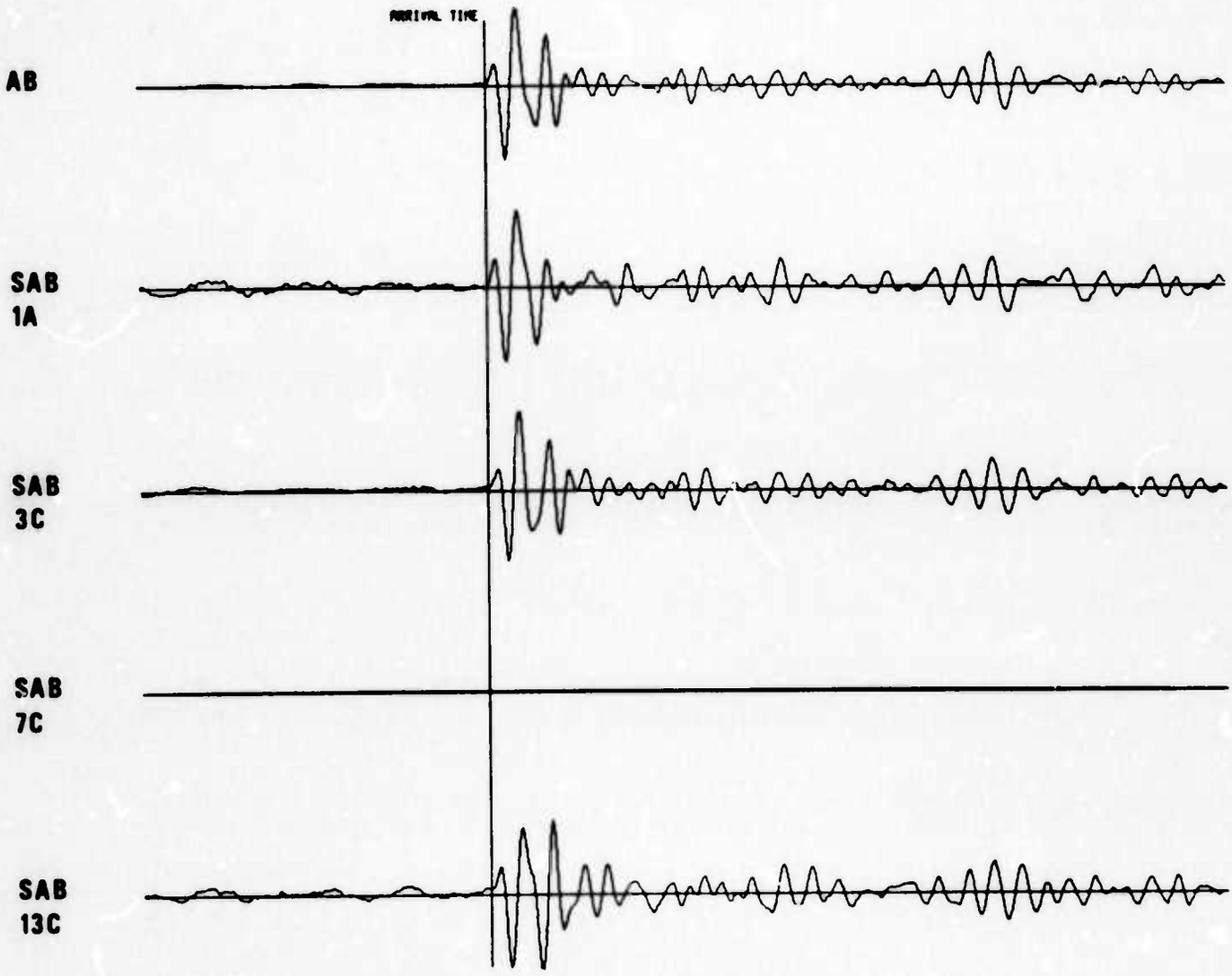

LASA (INDIVIDUAL SHORT-PERIOD INSTRUMENTS) 3 JUN 75
PADDED SENSORS (-30 dB)
14:22:54.2
A0-1B
D3-1B
D4-1B
D1-1B
D2-2B
14:22:1B
10 SEC
(NO AMPLITUDE DETERMINATIONS MADE DUE TO UNRESOLVED SCALING PROBLEMS)

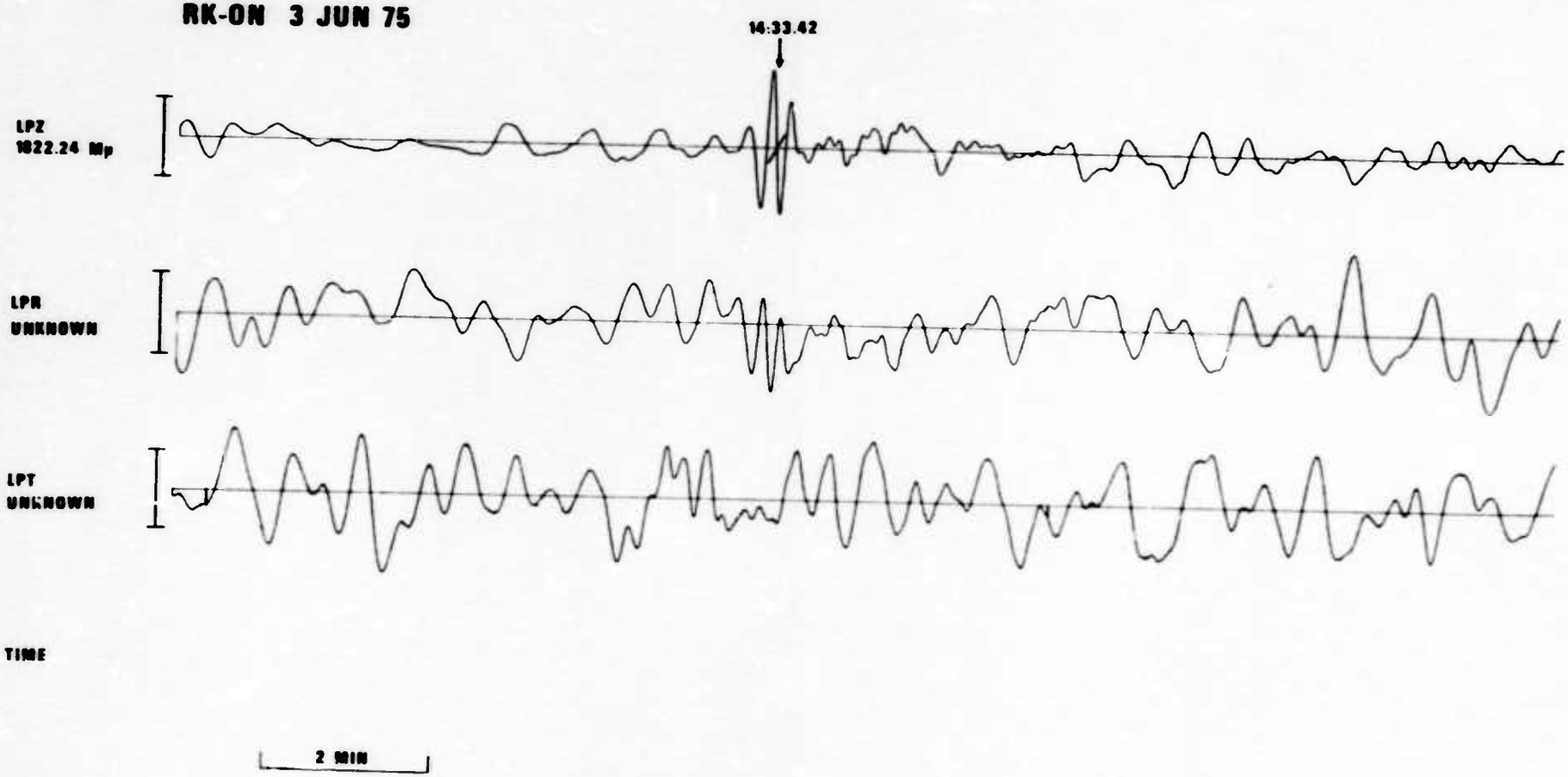
NORSAR EVENT FILE 1975 JUN 3

EPX NO. 1380 ARR. 14.31.32.0 38.2N 115.6W 5.6MB 33KM

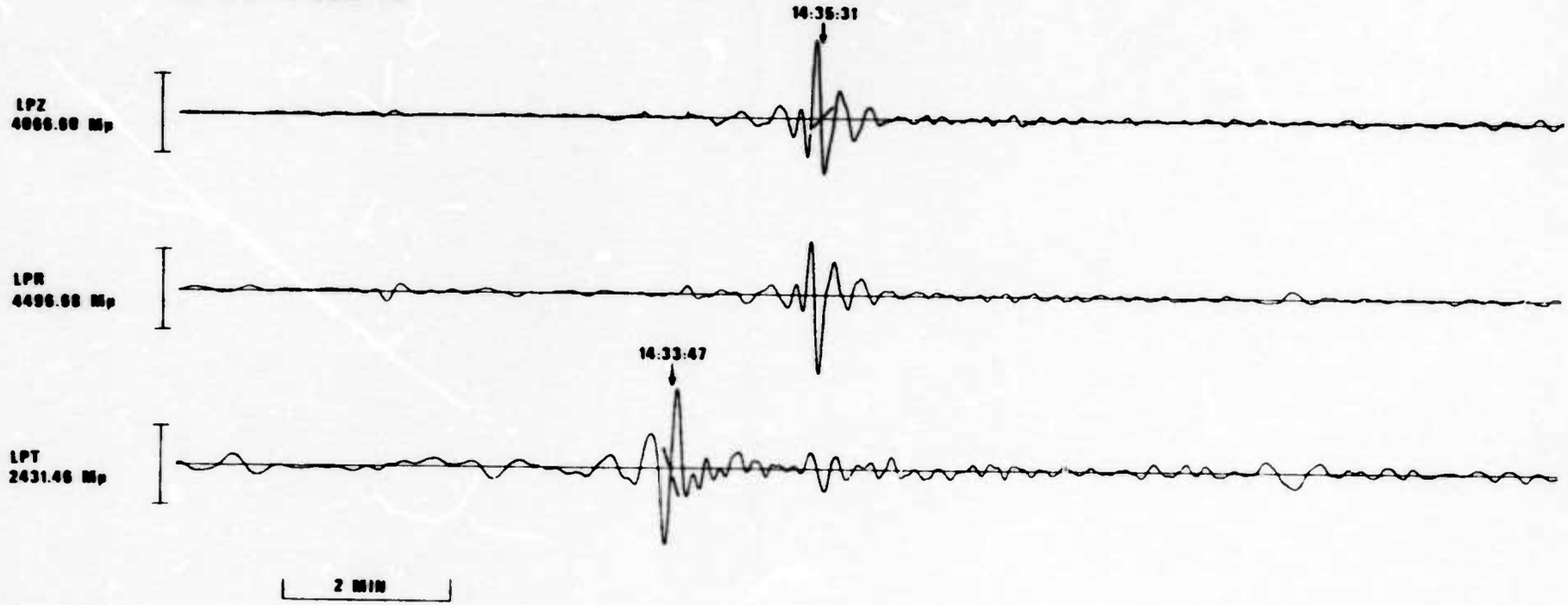
DIST = 72.1 AZI = 318.2 AMP = 73.6 PER = 1.1 UMETH 2

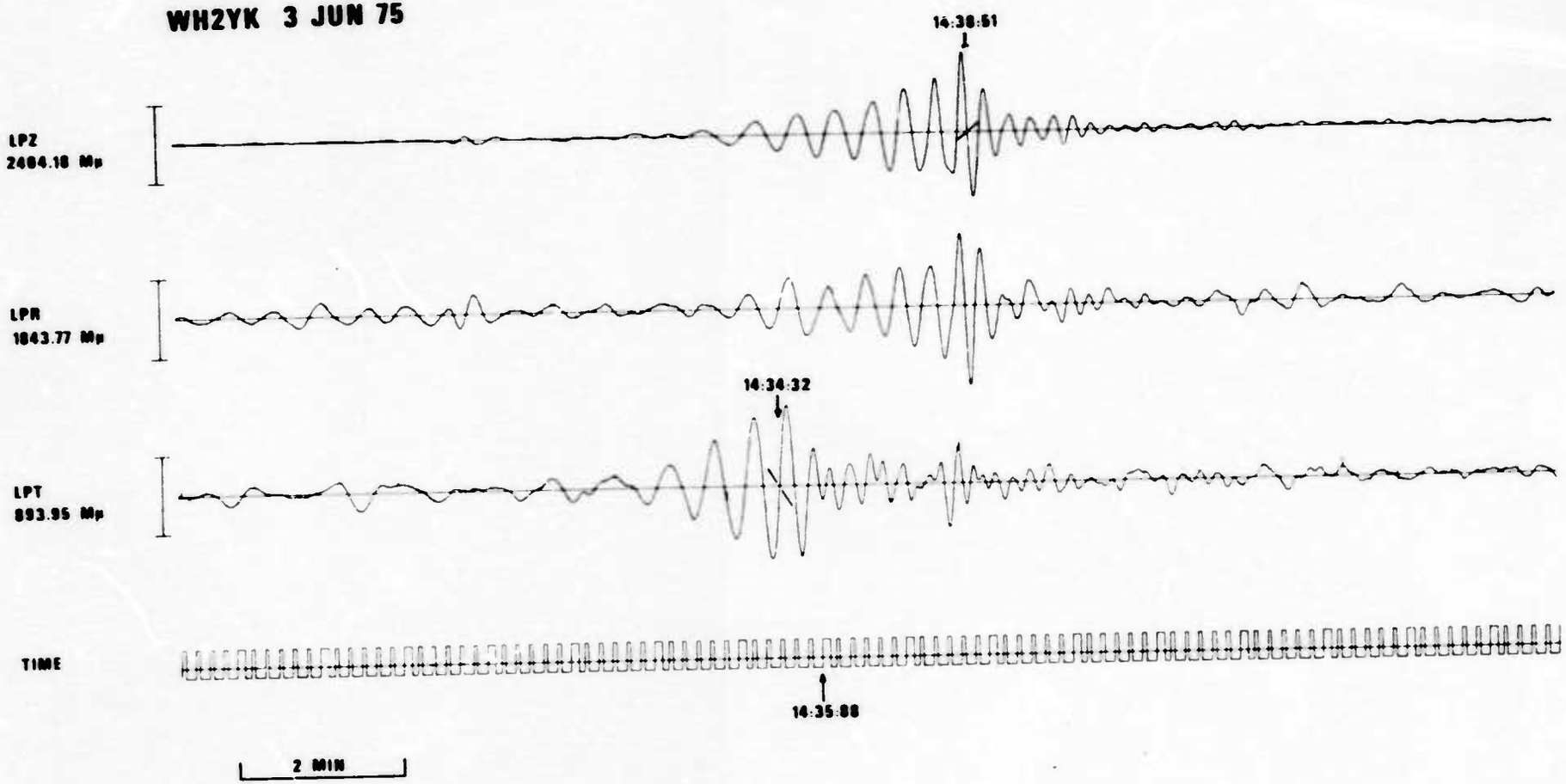
SCALE = 5 SECONDS

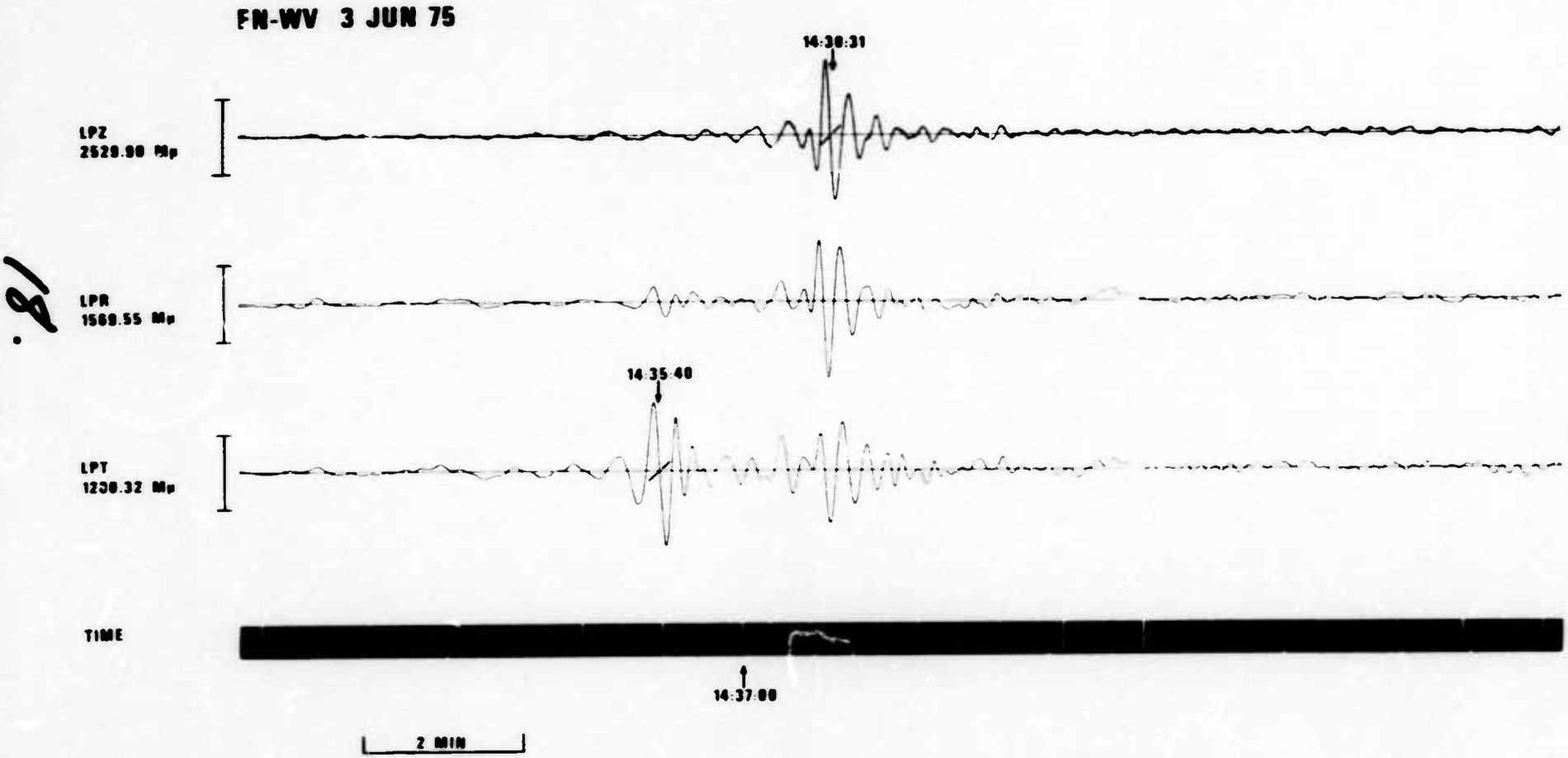


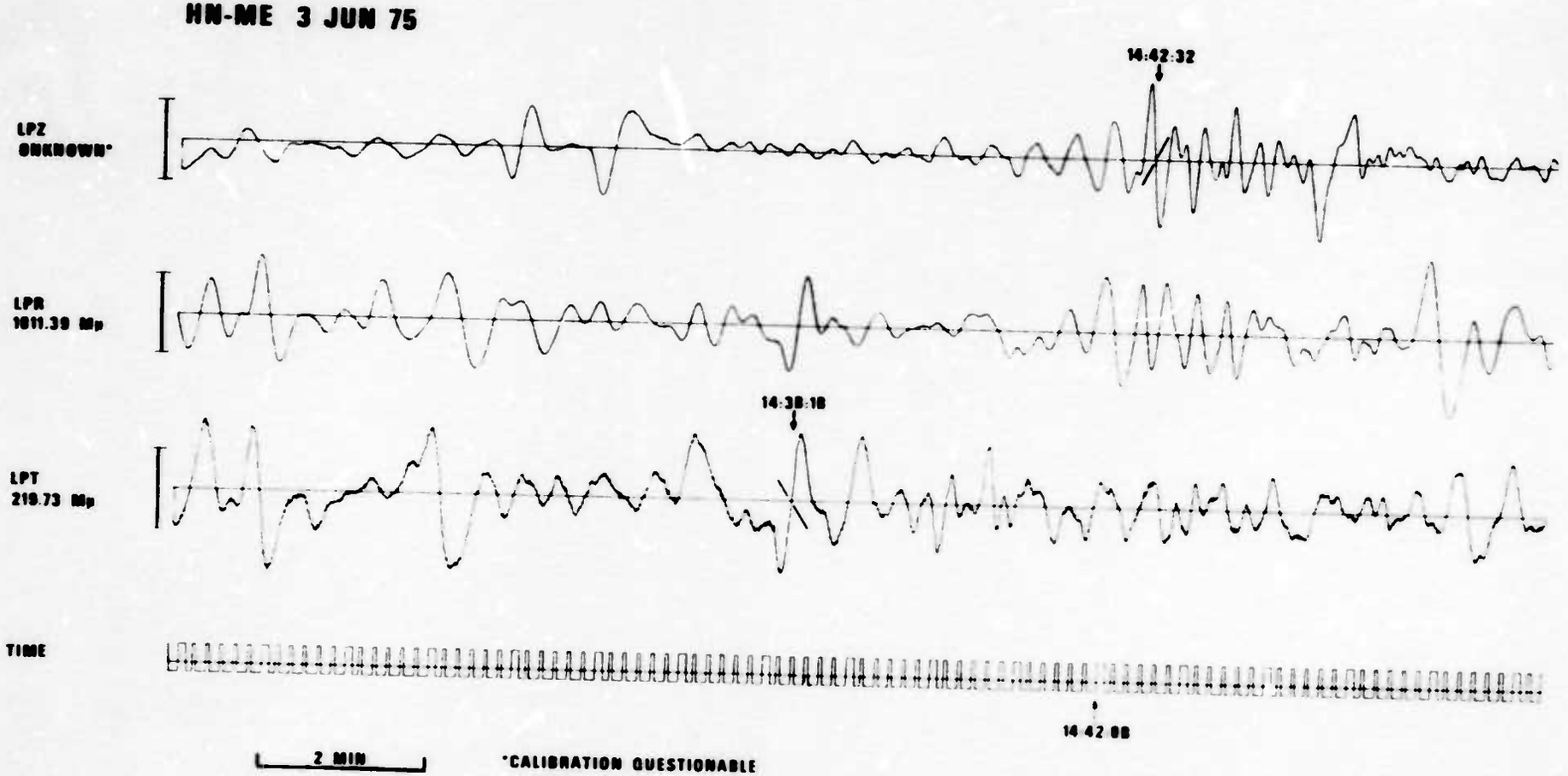

RK-ON 3 JUN 75
14:33.42
LPZ
1822.24 Mp
LPR
UNKNOWN
LPT
UNKNOWN
TIME
2 MIN

16.

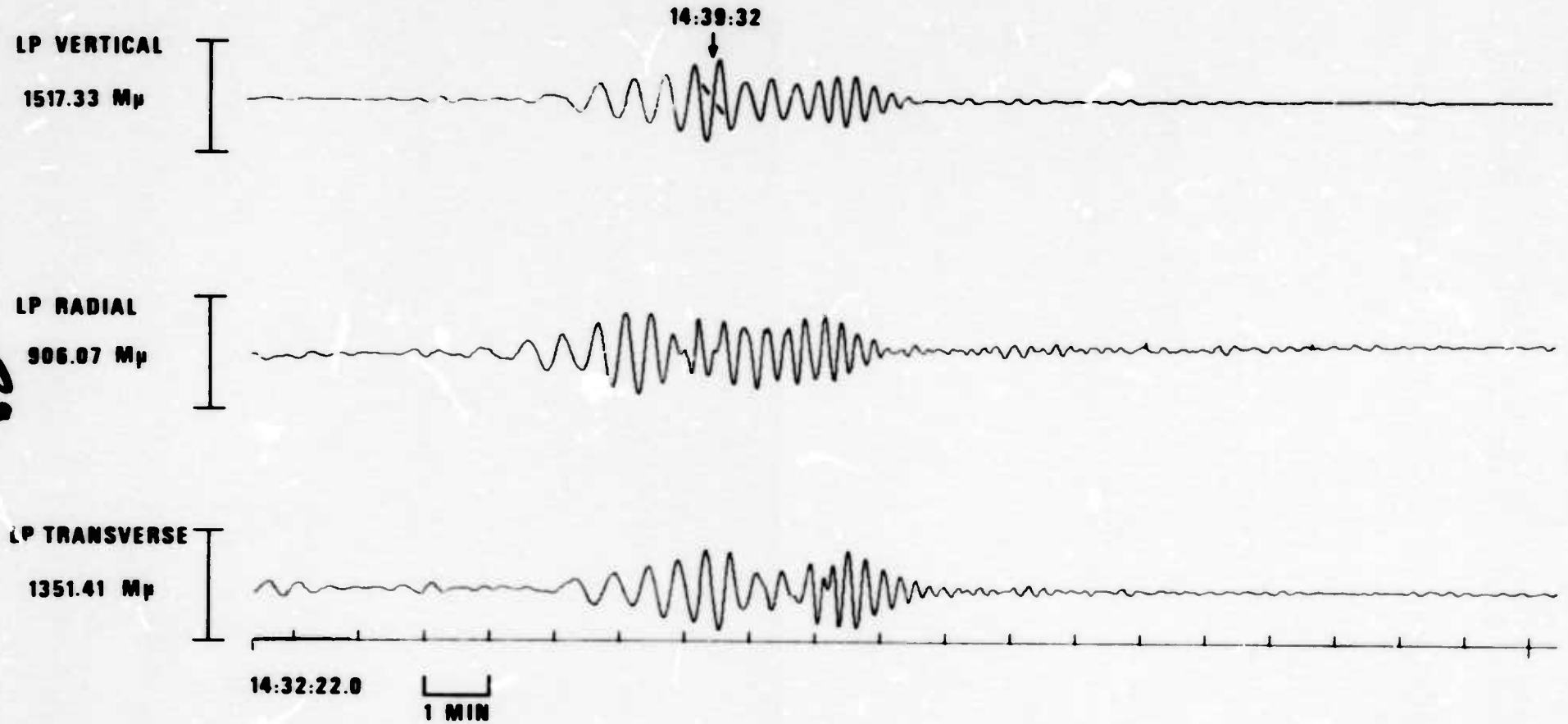

CP-SO 3 JUN 75
14:35:31
LPZ
4066.66 Mp
LPR
4496.66 Mp
14:33:47
LPT
2431.46 Mp
2 MIN


WH2YK 3 JUN 75
14:38:51
LPZ
2484.18 Mμ
LPR
1843.77 Mμ
14:34:32
LPT
893.95 Mμ
TIME
14:35:88
2 MIN

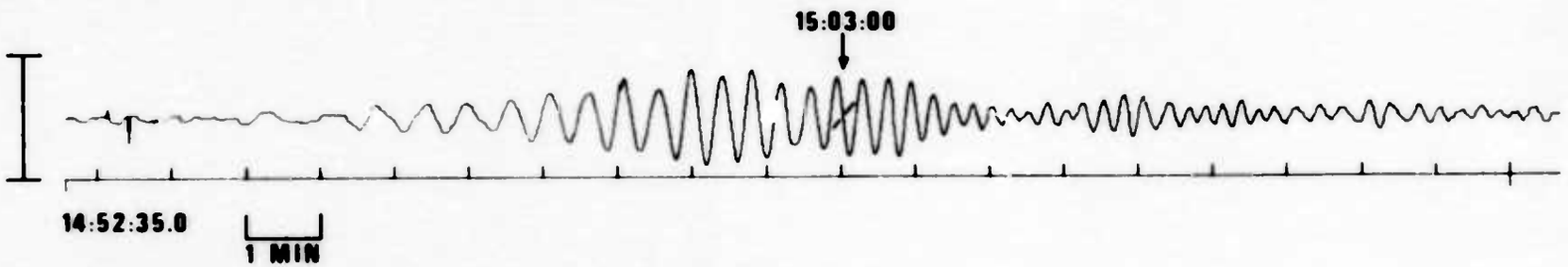

FN-WV 3 JUN 75
14:30:31
LPZ
2529.90 Mp
LPR
1569.55 Mp
14:35:40
LPT
1230.32 Mp
TIME
14:37:00
2 MIN


HN-ME 3 JUN 75
14:42:32
LPZ
UNKNOWN*
LPR
1811.39 Mp
14:38:18
LPT
219.73 Mp
TIME
14 42 08
2 MIN
*CALIBRATION QUESTIONABLE

ALPA LONG-PERIOD BEAMS 3 JUN 75



NORSAR LONG-PERIOD BEAMS 3 JUN 75



RADIAL AND TRANSVERSE CHANNELS NOT RECOVERABLE